PINPOINTING RADIATION THERAPY WITH THE PRECISION OF MR.

MR Radiation Oncology Suite
MAXIMIZE YOUR PRECISION.

HELP MINIMIZE PATIENT COMPLICATIONS.

Our goal in MR radiation oncology is to help you target and treat your patients’ cancer without harming the healthy tissue surrounding it. While there are many options at your disposal, only MR can provide excellent soft tissue contrast, functional, metabolic and dynamic imaging, all with no radiation. And we have a fully customizable and comprehensive MR radiation oncology solution designed to take advantage of the latest MR technologies. Give yourself this essential option.

Your first step in efficiently integrating MR into your radiation treatment planning is to properly position the patient. Precise positioning improves image fusion with CT-based treatment plans and can reduce complications for patients.

Our coil technology is designed to work with many of the positioning devices you use. The result is high-quality diagnostic images in the treatment position. And since our solutions are easily integrated into your current radiation therapy workflow, your transition into utilizing the unique advantages of MR will be seamless.

Pelvic and abdomen imaging

The GEM Express patient table is a mobile patient transport with an embedded high-density posterior RF coil array. By positioning the patient on the GEM table with the oncology insert and using the GEM Suite anterior array and coil supports, you are able to achieve diagnostic quality pelvic and abdominal images in the treatment position.

WE HAVE PATIENT POSITIONING PACKAGES FOR A BROAD RANGE OF TUMORS

- BRAIN
- HEAD AND NECK
- PROSTATE
- GYN
Prostate
T2 frFSE
40 x 40 FOV, 3 mm thick, 0 space

Prostate
T1 FSE
40 x 40 FOV, 3 mm thick, 0 space

Brain
T1 FSE post-contrast
3 mm thick, 0 space

Brain
T2 frFSE
3 mm thick, 0 space
GEM RT Head and Neck Suite (full package)

Posifix® head and neck positioning package

Six-channel Flex coil

Large GEM Suite Flex coil

GEM Suite RT open array

Head and Neck PROPELLER 3.0
512 x 512 3 mm

Head and Neck T1 Cube
1 mm thick

Head and Neck T2 Cube
1 mm thick

Head and Neck T2 Cube
3 mm reformat
MAINTAINING THE TREATMENT POSITION.

Maintaining the treatment position during simulation is important, but you shouldn’t be forced to sacrifice image quality. Our flexible surface coils enable high-resolution imaging in the presence of industry-standard fixation devices. This allows you to collect diagnostic quality images while keeping the patient in the treatment position. Further, the coil positioning supports provide positioning flexibility with control for easy setup and repeatable imaging.

MR radiation oncology positioning insert
This insert provides a fully flat patient-imaging surface with industry-standard indexing notches required for attaching positioning devices to the Express table.

GEM RT open array
To enhance imaging of the head and neck, the GEM RT open array sits below the oncology positioning insert and underneath the patient’s head and neck. While the RT open array is out of sight, it provides important coverage when combined with the six-channel neuro Flex coil and the 16-channel large GEM Flex coil to form the RT Open Head and Neck Suite. By not covering the face, the open design enhances patient comfort.
MR-compatible positioning packages
Manufactured by CIVCO, a market leader in radiation therapy patient positioning, these positioning packages are designed for use with the oncology insert for the Express table. Developed with MR compatibility and artifact reduction in mind, they allow you to confidently image patients in the treatment position for conventional radiation therapy and stereotactic radiosurgery.
Our premium wide bore MR systems deliver the high spatial integrity required for radiation oncology with an expansive 50 cm field of view that accommodates imaging out to the edge of the skin. Built on a fully redesigned MR platform, these systems feature advanced applications for rapid acquisition of high-resolution isotropic MR images, dynamic contrast-enhanced imaging and advanced workflow incorporated into industry-leading treatment simulation and planning software programs. Integrated with the MR Radiation Oncology Suite and GEM Suite of coils, you can help to characterize disease, plan treatment options, target tumors, preserve healthy tissue and assess response to therapy.
In order to properly distinguish tumor targets, you need a single hub capable of efficiently and seamlessly managing your images from multiple modalities. Our Integrated Registration (IR) imaging software on the AW workstation enables easy fusion of 3D anatomical images from CT, MR, PET, SPECT and X-ray. AW IR automatically and easily registers your therapy planning CT images to multiple MR image sets, improving productivity and connectivity between your image acquisition and therapy planning systems.

Add to that AdvantageSim MD, and you’ll have advanced virtual simulation software that automatically defines contours and volumes and determines geometric beam placement to improve accuracy and speed of planning for high-precision radiotherapy techniques. This simulation tool provides the latest in simulation and localization technology to help you improve your productivity and accuracy in treating your patients.

**Cube**
Single 3D volume scan easily reformats to sub-millimeter isotropic resolution in any plane in all contrasts.

**LAVA Flex**
A rapid 3D sequence for consistent and reliable fat saturation in one breath-hold.

**IDEAL**
Improves visualization in areas traditionally difficult to image, such as the neck and spine.
**Diffusion Tensor Imaging (DTI)**
FiberTrak allows visualization of white matter tracts.

**3D Arterial Spin Labeling (3D ASL)**
Quantitative perfusion imaging without contrast.

**PROPELLER 3.0**
Motion-insensitive imaging for efficient neuro and body exams.

**eDWI**
Ability to visualize pathology and measure ADC values in a single breath-hold in the liver and beyond.
We developed the MR Radiation Oncology Suite so that you can utilize the unique capabilities of MR to help treat your patients' cancer with precision. We are committed to providing a comfortable solution for the patient, while delivering high-resolution MR images, which may help you improve patient care.

– MR Radiation Oncology Suite product manager
About GE Healthcare
GE Healthcare provides transformational medical technologies
and services to meet the demand for increased access, enhanced
quality and more affordable healthcare around the world.
GE (NYSE: GE) works on things that matter - great people and
technologies taking on tough challenges. From medical imaging,
software & IT, patient monitoring and diagnostics to drug discovery,
biopharmaceutical manufacturing technologies and performance
improvement solutions, GE Healthcare helps medical professionals
deliver great healthcare to their patients.

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